

Rose-Hulman Institute of Technology  
Electrical and Computer Engineering

ECE332-01 – Computer Architecture II

2-Dec-2002

Week	Date	Reading	Topic	HW Problems	Notes
1	2-Dec		Intro, Overview of Pipelining		
	3-Dec	6.1,6.2	A Pipeline Datapath	6.1,.7	
	5-Dec	6.2	More Datapath		
	6-Dec	6.3	Pipelined Control	6.9	
2	9-Dec	6.4,5	Data Hazards	6.4,11,12,13,16	Due: List of Topics
	10-Dec	6.6	Branch Hazards, Branch Delay Slots	6.19,20,24	
	12-Dec	5.6,6.7	Exceptions	6.26	
	13-Dec	wk2 paper	Dynamic Prediction		
3	16-Dec		More Dynamic Prediction		Due: Topic/Group Choices
	17-Dec		Even More Dynamic Prediction	Handout	
	19-Dec		Exam1 - pipelining		
	20-Dec		Review Exam1		
4	6-Jan		Instruction-Level Parallelism		
	7-Jan		Multi-length Instructions - loop unrolling	6.30,31	
	9-Jan		More ILP with Multiple Issue	Handout	
	10-Jan		Complier Support for Exploiting ILP		
5	13-Jan	m1/m2	*CT 1: Intro to TI6000 / Pipeline	Mod 1/ Mod 2	Bring Workshop Book Due: Annotated Bibliography
	14-Jan	m7	Architecture Details	Module 7	
	16-Jan	m8	Optimization Methods	Module 8	
6	17-Jan	m9	Software Pipelining	Module 9	
	20-Jan	m10	Pipelining Multi-cycle Loops	Module 10	
7	21-Jan		Review / Speaker ??		
	23-Jan		*CT 2: IA-64		
	24-Jan	wk6 paper	IA-64		
	27-Jan		IA-64		
	28-Jan		IA-64		
	30-Jan		Exam2 - ILP, VLIW		
8	31-Jan		Review Exam 2		
	3-Feb		Peer Review First Draft		Due: First Draft
	4-Feb	8.1-8.3	Interfacing Procesors and Peripherals	8.2,8.3	
	6-Feb	8.4	Busses		
9	7-Feb		More Busses	8.12,8.16	Due: Final Project
	10-Feb		Project Presentations		
	11-Feb		Project Presentations		
	13-Feb		Project Presentations		
	14-Feb		Project Presentations		
10	17-Feb	wk 9 paper	*CT 3: TBA		
	18-Feb		CT 3: TBA	Handout	
	20-Feb		CT 3: TBA		
	21-Feb		CT 3: TBA		

\*CT = Current Topic

**Text** – Patterson and Hennessy, *Computer Organization & Design 2nd Ed.*, Morgan Kaufmann, 1998.

**Reading** – Read the assignment *before* class; the classwork may assume that you have done so.

**Instructors** – Mark A. Yoder, Box 122, Room D208, Phone 8291, Home 812-443-0200 before 9:00 p.m.

**Homework** – All work assigned is due in the format specified in *Homework Format* at the beginning of the period on the Monday following. Work assigned on one day is due the *next* Monday.

**Grades** – The grading policy for this course is stated in *EC332 – General Information*.